



US006428057B1

(12) **United States Patent**
Reise

(10) **Patent No.:** **US 6,428,057 B1**
(45) **Date of Patent:** **Aug. 6, 2002**

(54) **MUZZLE DOOR LATCH FOR STATIC AND DYNAMIC CONDITIONS**

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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 59 days.

(57) **ABSTRACT**

A muzzle door latch, or attachment mechanism, incorporates spring-loaded plungers acting within concave surfaces to provide additional resistance to vibration. The door, or cap, has an elastomeric seal about its outer circumference, which fits snugly within the muzzle. Diametrically opposed guides are attached to the outer side of the cap and extend radially past the outer edge of the muzzle. A plate is attached to the exterior of the muzzle, corresponding to each guide, and each plate extends slightly beyond the end of the muzzle. A roller on each guide engages the outer surface of the plate when the cap is positioned within the muzzle. The plates have a concave indentation on their inner surface, and a spring-loaded plunger on each guide is biased against the concave surface.

(21) **Appl. No.:** 09/678,879

(22) **Filed:** Oct. 4, 2000

(51) **Int. Cl.⁷** E05C 1/00

(52) **U.S. Cl.** 292/32; 292/163; 292/164;
277/637

(58) **Field of Search** 292/163, 33, 164,
292/32; 220/326, 323; 277/630, 637, 640,
641, 616

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8 Claims, 2 Drawing Sheets

